



## BIOLOGICAL SCIENCE TECHNICIAN (FISHERIES), GS-404-08

The incumbent serves as a Biological Science Technician in a National Fish Hatchery, Fishery Resources Office, or Fish Health Center of Region 3, U.S. Fish and Wildlife Service. Duties may include but are not limited to the following:

### A. MAJOR DUTIES:

- Assists project leader and fishery biologists to develop and draft plans that describe the hatchery/office/center work required, specifically the portions that include technical procedures. Independently, and in consultation with the Project Leader and fishery biologists, evaluates novel hatchery/office/center technologies to meet work plan objectives using applicable technical principles.
- Assists in leading lower-graded permanent, seasonal, and temporary technical staff to complete work plan objectives and tasks. Assists with the schedule and completion of the daily work of the lower-graded permanent, seasonal, and temporary technical staff members without direct daily contact with supervisor. Assures adequacy of protocols. Adjusts schedules to adapt to variable conditions. Reviews work in progress to assure that instructions are understood and followed.
- Trains lower-graded permanent, seasonal, and temporary technical staff to develop, recommend, and implement procedures for biological sampling, safety, quality improvement, and orienteering in the field. The training and leading sometimes includes the development, recommendation, and implementation of new procedures.
- Designs, fabricates, maintains, repairs, and operates highly specialized hatchery/office/center equipment.
- Provides on a continuous basis a high level of ingenuity and originality to assess use patterns and effectiveness of current technologies and tools. Redevelops current resources or incorporates new technologies and tools. Conducts background searches, investigates products, develops contacts with commercial representatives, identifies sources, recommends action, implements changes, evaluates products, and modifies as necessary.
- Prepares or assists in the preparation of detailed drafts of internal reports that describe investigations into technology or tool redevelopment or incorporation that includes interpretations, conclusions, and recommendations. Presents technical results at workshops.
- Maintains cooperative relationships with and provides expert technical consultation to state, federal, provincial, tribal, corporate, and public contacts. Represents the Service and the Program to the public, service groups, sports groups, schools, and others.
- Monitors and measures processes for quality assurance. Adapts process when necessary. Conducts inventory, monitors use, and procures replacement for equipment, materials, and supplies. Assures adherence to administrative policies for purchases and contracting.

- Collects, measures, and records biological, physical, environmental, and geographical data. Handles aquatic organisms responsibly and in compliance with Service protocols. Uses and disposes of hazardous materials in safe and legal manner.
- Uses software including word processing, spreadsheet and database to document activities (e.g., write reports, track equipment, log entries, review, proof, and analyze data.) Uses a variety of tools including maps, compass, GPS, computer and other resources to navigate in both populated and remote areas.
- Operates, maintains, and repairs vehicles with trailers.

B. FACTORS:

1. Knowledge Required by the position:

- Knowledge of the technical application of fishery biology. Knowledge of the fish hatchery management, fish culture principles, laboratory techniques, and fish population assessment techniques.
- Ability to apply developing technological advances to fish hatchery/fishery resources office/fish health center practices. Ability to develop recommendations using data, precedents, and pertinent literature. Awareness of integral roles of technology, science, agency policies, and hatchery/center objectives.
- Skill in the development, fabrication, use, evaluation, and modification of a variety of hatchery/office/center laboratory equipment. Skill to maintain, repair, and safely operate equipment used in hatchery/office/center laboratory activities. Skill to monitor performance of equipment and make adjustments consistent with protocols.
- Skill and a high level of ingenuity and originality to assess current equipment and technology needs, recognize areas that need improvement, and develop solutions to improve operations.
- Knowledge of administrative guides, and processes regarding procurement of equipment. Ability to incorporate understanding of agency policies and practices to develop, implement, and evaluate new tools and technologies.
- Ability to record, analyze, and summarize technical data. Ability to present complex technical information in verbal, written, and graphic form. Ability to communicate the technical information effectively and represent the information to people outside the hatchery/office/center.
- Ability to plan, organize, and implement hatchery/office/center laboratory trials using specialized equipment and techniques.

- Skill in working with members of team in the national fish hatchery/fishery resources office/fish health center. Skill to adapt schedules and plans to changing conditions. Skill to interact effectively and tactfully with team members, cooperators, and contractors to complete tasks and to achieve objectives.
- Ability to provide expert technical consultation to the project leader and fishery biologists on the technical elements of fish culture/fishery resources/fish health. Ability to act as an independent trouble-shooter to solve technical problems with equipment and instruments. Ability to make sound independent decisions based on experience and consultation with peers.
- Knowledge of safe working practices, regulatory and environmental compliance, and hazardous materials regulations.
- Ability to develop and follow standard operating procedures, track inventory, anticipate needs, and solve problems.
- Ability to operate computers using a variety of software packages to manage, extract, and present data.
- Ability to operate motorized vehicles.

## 2. Supervisory Controls:

The incumbent is supervised by the Project Leader or Assistant Project Leader and maintains periodic contact in developing plans and scheduling work. The incumbent and supervisor discuss objectives, tasks, likely problems, approaches, and due dates. The incumbent develops plans to accomplish tasks by the selection, application, and adaptation of appropriate procedures. For unfamiliar technical problems involving methods not covered by guides or precedents, the incumbent independently solves routine problems and consults with the project leader on problems of a complex nature. The Project Leader reviews proposed plans for addressing unfamiliar technical problems for adequacy, completeness, and validity of approach. While in field status (at locations other than duty station), the incumbent works largely independent of supervision.

## 3. Guidelines:

Guidelines are available in the form of standard methods in procedural manuals, textbooks, and handbooks, previous studies on related subjects, and other literature. The incumbent uses experience and judgment in interpreting and applying these guides to ensure that tests, measurements, and observations will yield valid results. Sometimes, available guides are not directly applicable to new requirements and incumbent is required to adapt procedures to meet operational needs. In these instances, incumbent must exercise independent judgement and originality to develop improvements and modifications using knowledge of fish culture, fishery resources, fish health, team needs, and technological capabilities.

4. Complexity:

The biological science technician position is complex due to procedures to meet hatchery/office/center laboratory conditions, equipment requirements, safety guidelines, different political units, and need for public relations work. Assignments often require resourcefulness in making schedule changes and adjusting to changing conditions at the hatchery or center. The incumbent must be aware of hatchery/fishery resources office/fish health center goals and team objectives and choose the best course of action to complete tasks. Considerations of different courses of action include the evaluation of established methods, procedures, techniques, and selection of technically appropriate methods. The incumbent uses sound judgement to trouble shoot and solve technical problems and to interpret, assess, and make optimum use of precedents and available data. Equipment must be monitored and used appropriately in dynamic conditions. Modifications and incorporations of new equipment and tools are an ongoing and essential responsibility. The work involves numerous and complex protocols for working with electricity, hazardous chemicals, machines, and water. The incumbent sets an example for safety by conducting duties in a safe and orderly manner so as to protect self, fellow workers, and property. The work involves coordination with partners in other U.S. agencies, state, and tribal agencies, private, and corporate groups, contractors, and the public. Due to the sensitivity of the public, incumbent is sometimes involved in public relations that can be controversial.

5. Scope and Effect:

The purpose of this position is to provide technical support to conduct and complete tasks to meet the hatchery/office/center objectives. It is the responsibility of the incumbent to conduct work that adheres to standard operating procedures and technically sound methods. Incumbent must be versatile and innovative in order to evaluate the applicability of current tools, identify the need for new approaches, devise or integrate new technologies or tools to improve work efficiency and products. Work products developed, modified, evaluated, and redesigned by the incumbent are critical to the efficiency and implementation of hatchery/office/center studies. Completeness, correctness, and accuracy of all work affects validity of data used to allocate resources, determine effectiveness of control activities, and assess efficiency of operations. Sound technical support is required to ensure safe operations when working with electricity, hazardous chemicals, tools, machinery, and waters.

6. Personal Contacts:

Most contacts are with the project leader, team members, other staff at the hatchery/office/center, within other offices of the Region, and with other technical subject matter specialists in the same or related disciplines. These other technical specialists generally are representatives of the Service, U.S. Geological Survey-Biological Resources Division, state Departments of Natural Resources, Native American tribes, conservation groups, and equipment manufacturers. Incumbent represents the program to the media, general public, sports groups, state conservation agencies, and school groups.

7. Purpose of Contacts:

The purpose of contacts is to accomplish tasks of the hatchery/office/center. Contact frequently is initiated to evaluate tools and technologies, investigate products, identify sources, and collaborate with technical experts to develop and refine equipment needs. Occasionally, incumbent initiates contacts with other natural resource agencies to develop cooperative agreements. Incumbent provides information on progress to Project Leader, exchanges information and ideas with other natural resource personnel, leads lower grade employees and contractors, coordinates with cooperators, establishes cooperative relationships for career development, conducts training, and informs the general public.

8. Physical Demands:

The work requires some physical exertion such as walking over wet, rough, uneven or rocky surfaces while wearing a backpack; bending, crouching, stooping, stretching, reaching, climbing or similar activities. Work as a team member to handle items up to 150 pounds, and repetitive lifting of items up to 50 pounds may be involved. Work requires above average agility and dexterity.

9. Work Environment:

The work is conducted both indoors and outdoors. Office and shop areas are adequately lighted, heated and ventilated. Temperature and weather extremes, dampness, humidity, and insects are encountered outdoors. Incumbent works with potential hazards of water, electricity, chemicals, tools, and machinery, and wears protective gear.

The incumbent may be required to obtain a commercial drivers license (CDL).

10. Uniforms:

The incumbent is required to obtain and properly wear class B and C uniform components as prescribed in The Fish and Wildlife Service Manual.